

The Common Record

Overview

The Common Origination and Disbursement Process utilizes one single record across programs for both origination and disbursement. In the interest of simplification, Pell Recipient Financial Management System (RFMS) and Direct Loan Origination System (DLOS) will integrate into one. The COD design requires a new Common Record, one that uses common data elements, definitions, edits, and structure for Pell Grants and Direct Loans. Although the record has the same layout for all programs, not all data elements are required for each transmission. This new record layout relies on a new technology called *XML*, *EXtensible Markup Language*.

This section describes the structure and layout of the Common Record. The following topics are addressed:

- What is XML?
- XML 101
- Common Record Structure

What is XML?

XML stands for **EXtensible Markup Language**. It is a new technology designed to both describe and exchange structured data between a range of applications. XML consists of elements that are defined by tags. A start tag precedes the name of an element. An end tag follows it. While it does employ the kind of tags you see in HTML, XML is not a replacement for HTML. XML employs tags to identify data elements, or what data is, while HTML is used to identify data attributes, or how data looks. XML can be used in conjunction with HTML to store data within standard Web pages. It can also be used to store data in files and to pull information from disparate, incompatible databases.

One of the objectives behind the conceptual design of the COD Process was to provide FSA and our partnering student aid schools greater flexibility in record processing, i.e., opportunities for multiple data cross-walks and smaller-sized files. The COD Process could serve as a technological foundation for future FSA integration initiatives. Given these objectives, XML was the logical choice for the Common Record's format and structure. XML offers the flexibility to design records, known as XML documents, particular to an audience or community. It allows increased access to and reuse of information. It supports validation [edits] by checking structural validity and flagging errors. It also enables systems to share information and users to see different views of available data.

XML 101

XML technology allows a common transmission structure to be used between two disparate systems. It is a markup language that defines data structure. An XML *document* is the vehicle through which data is transmitted. It can be thought of as a batch.

XML documents are comprised of markup and content. Markup is the definition of the data that follows. It is distinguished by `< >` and `</>`. Markup within brackets is considered an *element*. An element within brackets is a *tag*. In the example,

```
<LastName>Jones</LastName>
```

`<LastName>` is a start tag. Note the presence of brackets. `LastName` is an element. `Jones` is the data, or XML content. `</LastName>` is an end tag.

Elements can be either simple or complex. A *simple element* refers to the value that is contained within tags. A *complex element* is a grouping of *attributes* or other elements. The Common Record is a logical grouping of complex elements.

Fixed Format Files vs. XML Documents

Fixed format files have been used as vehicles through which data can be exported and imported to business applications. Fixed format files contain a sequence of fields that is in machine-readable language. An example of a student fixed format file follows:

```
SALLY   JONES  12345678919820304      Y
```

Business applications are rapidly moving toward the use of XML to exchange data. XML is a language that is not only machine readable, but also human

readable. This characteristic facilitates correcting rejected fields. An XML example of the Person Block follows.

XML Example of the Person Block

```
<Student SSNum="123456789" DOB="19820304" LastName "Jones">
  <Name>
    <FirstName>Sally</FirstName>
    <MiddleInitial>A</MiddleInitial>
    <LastName>Jones</LastName>
  </Name>
  <Contact>
    <Address>
      <Addr>531 Tower Drive Apt 3C</Addr>
      <City>Alexandria</City>
      <State>VA</State>
      <ZipCd>22314</ZipCd>
    </Address>
    <PhoneNum>2021234567</PhoneNum>
    <Email>Sally.A.Jones@email.org</Email>
  </Contact>
  <Identifier>
    <DLNum>"123972" state="VA"</DLNum>
  </Identifier>
  <Information>
    <DtofBirth>19820304</DtofBirth>
  </Information>
</Student>
```

Common Record Structure

The XML document called the Common Record is composed of different information modules, referred to as *blocks*. Within the blocks, or *complex elements* are data fields that emphasize similarities across programs and contain information such as: demographic data, award amount, disbursement amount and the accept/reject response status of the record.

A general rule regarding sequence of data within blocks, and within complex elements: the start and end data tags and their context must be presented on the XML document within the block's tags or the complex element tags to which they belong. The sequence of the data within that block or element is dictated by the sequence of the data tags presented here. For example, if a complex element has

ten simple elements within it, those ten elements must occur in the same sequence as depicted in the Common Record layout that follows.

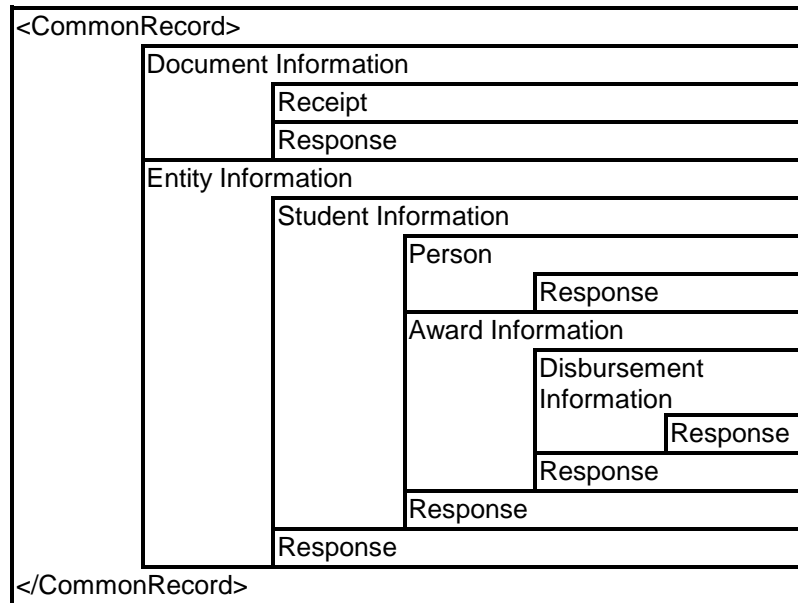
The Common Record is organized into the following structure:

Quick Reference Block Description

	Block Name	Block Description
1	Document Information	The Document Information Block contains information that was previously associated with a batch. It contains a date/time stamp, document validation information, summary level document information, as well as the source of the document. This block occurs once per XML Document or submission.
2	Entity Information	The Entity Information Block contains information about the reporting and attending school. This block occurs once per reporting entity or school within the XML Document or submission.
3	Person	The Person Block contains student or PLUS borrower information. This block occurs per award per person.
4	Award Information	The Award Information Block is for FSA's use and contains Direct Loan, Pell Grant and campus-based Award information. As other partners use the Common Record to transport data, this will be the location of those awards. This block occurs once per award per person.
6	Disbursement Information	The Disbursement Information Block contains disbursement information. This block occurs once per disbursement per award per person.
7	Response	A response block is nested within each block. The response block is returned to the submitting entity upon processing the Common Record. The response block contains information about edits that were rejected. It is a complete record that includes only the rejected fields populated with edit codes.

Below is a pictorial representation of the Common Record layout. It illustrates how the Common Record is comprised of information modules or blocks. The Common Record structure is subject to change in subsequent technical reference versions.

The Common Record Document Structure



Detailed specifications for coding the Common Record are included in Appendix B. For participating schools, software developers, and servicers, the transition to XML may initially require an investment of resources to build the Common Record. However, reformatting in subsequent years will take considerably less time and effort than currently required for updating fixed format files.